Amendments to the Claims:

The following Listing of Claims replaces all prior versions and listings of the claims in this application.

Listing of the Claims:

Claim 1 (Previously Presented): An ion-exchange chromatographic assay method, comprising the steps of:

a) providing a polymeric membrane type flow matrix attached to a liquid-impervious backing, which flow matrix permits a capillary force assisted lateral flow therethrough, and at least a part of which flow matrix contains ion-exchange functional groups selected from the group consisting of diethyl aminoethyl (DEAE), trimethyl hydroxypropyl (QA), quaternary aminoethyl (QAE), quaternary aminomethyl (Q), diethyl-(2-hydroxypropyl)-aminoethyl, triethyl aminomethyl (TEAE), triethylaminopropyl (TEAP), polyethyleneimine (PEI), methacrylate, carboxymethyl (CM), orthophosphate (P), sulfonate (S), sulfoethyl (SE) and sulfopropyl (SP), wherein the flow matrix is a porous polymer material with pores in the range of 0.01-20 μm;

b) treating the flow matrix to reduce or eliminate nonspecific adsorption properties of the flow matrix;

c) applying to the flow matrix a sample containing at least two components;

d) initiating a first lateral flow of aqueous fluid to transport the sample through the flow matrix and chromatographically separate each of the two components from one another and from the sample as they flow along the lateral flow matrix;

e) interrupting said lateral flow; and either

f1) detecting at least one of said separated components on the flow matrix in the position reached by the respective component when the flow was interrupted; or

f2a) initiating a second flow of aqueous fluid to transport the components in a direction substantially transverse to the direction of the first lateral flow;

f2b) interrupting said second lateral flow; and

f2c) detecting at least one of said separated components on the flow matrix in the position reached by the respective components when the second lateral flow was interrupted.

Claim 2 (Original): The method according to claim 1, wherein the separated components are immobilized on the flow matrix in their separated positions prior to detecting said at least one component.

Claim 3 (Original): The method according to claim 2, wherein the separated components are chemically immobilized on the flow matrix.

Claim 4 (Original): The method according to claim 2 or 3, wherein the flow matrix is subjected to a staining procedure to detect the component or components.

Claim 5 (Original): The method according to claim 4, wherein said staining procedure is selected from protein staining, lipid staining, carbohydrate staining, and DNA-staining.

Claim 6 (Original): The method according to claim 2 or 3, wherein a labeled reactant capable of specifically binding to said at least one component is added to the membrane for the detection thereof.

Claim 7 (Previously Presented): The method according to claim 1, wherein the polymeric membrane type flow matrix is first placed on a flat support surface with the backing contacting the surface.

Claim 8 (Currently Amended): An ~~ion-exchanged~~ ion-exchange chromatographic device comprising a polymeric membrane flow matrix attached to a liquid-impervious backing, which flow matrix permits a capillary force assisted lateral flow therethrough and contains ion-exchange functional groups selected from the group consisting of diethyl aminoethyl (DEAE), trimethyl hydroxypropyl (QA), quaternary aminoethyl (QAE), quaternary aminomethyl (Q), diethyl-(2-hydroxypropyl)-aminoethyl, triethyl aminomethyl (TEAE), triethylaminopropyl (TEAP), polyethyleneimine (PEI), methacrylate, carboxymethyl (CM), orthophosphate (P), sulfonate (S), sulfoethyl (SE) and sulfopropyl (SP), sufficient to chromatographically separate each of at least two components from one another and from a sample containing the components as they flow along the lateral flow matrix, wherein the flow matrix is a porous polymer material with pores in the range of 0.01-20 μm.

Claim 9 (Previously Presented): An apparatus for determining components in a sample, which apparatus comprises the chromatographic device according to claim 8, and means for initiating and maintaining a liquid flow through the membrane.

Claim 10 (Original): The apparatus according to claim 9, which further comprises reagents for detecting one or more sample components separated in said device, and optionally also reagents for chemically immobilizing the separated components in the device prior to the detection.

Claim 11 (Currently Amended): An ion-exchange chromatographic assay method, comprising the steps of:

a) providing a porous polymeric membrane flow matrix attached to a liquid-impervious backing, which flow matrix permits a capillary force assisted lateral liquid flow therethrough, and at least a part of which flow matrix contains ion-exchange functional groups;

b) treating the flow matrix to reduce or eliminate unspecific adsorption properties of the flow matrix, wherein the treated flow matrix containing ion-exchange functional groups ~~to~~ chromatographically ~~separate~~ separates each of at least two components from one another and from a sample containing the components during their transport along the flow matrix;

c) applying to the flow matrix a sample containing at least two components;

d) initiating a first lateral flow of aqueous fluid to transport the sample through the flow matrix and chromatographically separate each of the two components from one another and from the sample during their transport along the flow matrix;

e) interrupting said lateral flow; and either

f1) detecting at least one of said separated components on the flow matrix in the position reached by the respective component when the flow was interrupted; or

f2a) initiating a second flow of aqueous fluid to transport the components in a direction substantially transverse to the direction of the first lateral flow;

f2b) interrupting said second lateral flow; and

f2c) detecting at least one of said separated components on the flow matrix in the position reached by the respective components when the second lateral flow was interrupted.

Claim 12 (Previously Presented): An ion-exchange chromatographic assay method, comprising the steps of:

a) providing a porous polymeric membrane flow matrix attached to a liquid-impervious backing, which flow matrix permits a capillary force assisted lateral liquid flow therethrough, and at least a part of which flow matrix contains ion-exchange functional groups sufficient to chromatographically separate each of at least two components from one another and from a sample containing the components during their transport along the flow matrix, wherein the flow matrix is treated to reduce or eliminate unspecific adsorption properties of the flow matrix;

b) applying to the flow matrix a sample containing at least two components;

c) initiating a first lateral flow of aqueous fluid to transport the sample through the flow matrix and chromatographically separate each of the two components from one another and from the sample during their transport along the flow matrix;

d) interrupting said lateral flow; and either

e1) detecting at least one of said separated components on the flow matrix in the position reached by the respective component when the flow was interrupted; or

e2a) initiating a second flow of aqueous fluid to transport the components in a direction substantially transverse to the direction of the first lateral flow;

e2b) interrupting said second lateral flow; and

e2c) detecting at least one of said separated components on the flow matrix in the position reached by the respective components when the second lateral flow was interrupted.

Claim 13 (Previously Presented): An ion-exchange chromatographic device, comprising a porous polymeric membrane flow matrix attached to a liquid-impervious backing, which flow matrix permits a capillary force assisted lateral fluid flow therethrough and contains ion-exchange functional groups sufficient to chromatographically separate at least two components from a sample and from one another during their transport along the flow matrix.

Claim 14 (Previously Presented): The method according to claim 1, wherein the two components comprise proteins having different isoelectric points.

Claim 15 (Previously Presented): The method according to claim 11, wherein the two components comprise proteins having different isoelectric points.

Claim 16 (Previously Presented): The method according to claim 12, wherein the two components comprise proteins having different isoelectric points.

Claim 17 (Previously Presented): The apparatus according to claim 9, adapted to chromatographically separate at least two proteins having different isoelectric points from one another and from a sample containing the proteins as they flow along the lateral flow matrix.

Claim 18 (Previously Presented): The ion-exchange chromatographic device according to claim 13, adapted to chromatographically separate at least two proteins having different isoelectric points from one another and from a sample containing the proteins as they flow along the lateral flow matrix.

Claim 19 (Previously Presented): The method according to claim 1, wherein the two components comprise proteins having different isoelectric points, peptides, nucleic acids or polynucleotides.

Claim 20 (Previously Presented): The method according to claim 11, wherein the two components comprise proteins having different isoelectric points, peptides, nucleic acids or polynucleotides.

Claim 21 (Previously Presented): The method according to claim 12, wherein the two components comprise proteins having different isoelectric points, peptides, nucleic acids or polynucleotides.

Claim 22 (Previously Presented): The apparatus according to claim 9, adapted to chromatographically separate at least two protein components having different isoelectric points, peptide components, nucleic acid components or polynucleotide components from one another and from a sample containing the components as they flow along the lateral flow matrix.

Claim 23 (Previously Presented): The ion-exchange chromatographic device according to claim 13, adapted to chromatographically separate at least two protein components having different isoelectric points, peptide components, nucleic acid components or polynucleotide components from one another and from a sample containing the components as they flow along the lateral flow matrix.